

**REMARKS**

Claims 1-18 and 20 are pending. Claims 1-11 are allowed. Claim 15 are found allowable subject to being rewritten in independent form.

Claim 20 has been amended to correct an error made in the previous amendment.

Claims 12-14, 16-18 and 20 have been rejected under 35 U.S.C. 103 as being unpatentable over Nercessian in view of Arbetter.

This rejection is respectfully traversed for the following reasons.

*REJECTION OF CLAIM 12*

Independent claim 12 recites a method for controlling an output of a slave supply circuit in a defined relationship to a time-varying master signal. The slave supply circuit has a slave output terminal and a feedback input terminal. The method comprises:

- accepting the master signal at a master supply circuit, the master signal varying at a master ramp rate;
- generating current at the master supply circuit responsive to the master signal;
- injecting the generated current from the master supply circuit into the feedback input terminal of the slave supply circuit;
- forcing the output of the slave supply circuit to vary responsive to the master signal and in accordance with the defined relationship; and
- presenting a high impedance to the feedback input terminal of the slave supply circuit.

The Examiner holds Nercessian to differ from the method recited in this claim only in that Nercessian does not disclose injecting generated current from the master supply circuit to the feedback input terminal of the slave supply circuit. Arbetter is relied upon for disclosing this feature.

Considering the references, Nercessian describes how multiple supplies can share the power required to drive a load by “cascading” them (stacking them in series so that they each drive a portion of the required voltage). Arbetter describes a method whereby the outputs of the supplies are connected in parallel. Therefore, no reason is evident for combining these references.

However, even assuming *arguendo* that the applied references were combined, the claimed invention would not result.

In particular, the combined teachings of the references would not teach or suggest accepting the master signal that varies at a master ramp rate, as claim 12 requires. The Examiner takes the position that “the master signal varies in time with respect to variable resistors 28, 14 and programming voltage source 15.”

It is respectfully submitted that the reference does not disclose that the variable resistors and the voltage source provide the master signal that varies at a master ramp rate, as claim 12 requires. In the event the Examiner relied upon inherency without expressly indicating such reliance, the Examiner should be aware that inherency requires certainty, not speculation. *In re Rijckaert*, 9 F.3rd 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *In re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986); *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); *In re Oelrich*, 666 F.2d 578, 212 USPQ 323 (CCPA 1981); *In re Wilding*, 535 F.2d 631, 190 USPQ 59 (CCPA 1976). To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probability or possibilities. *In re Robertson*, 169 F.3d 743, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). However, the Examiner provided no

factual basis upon which to conclude that variable resistors 28, 14 and voltage source 15 **necessarily** causes the master signal to vary at a master ramp rate, as the claim requires. Therefore, the Examiner's position is unwarranted. The claim neither expressly nor inherently discloses accepting the master signal that varies at a master ramp rate, as claim 12 requires.

Moreover, the combined teachings of the references would not suggest the step of generating current at the master supply circuit responsive to the master signal, as the claim recites. The Examiner relies upon col. 2, lines 66-72 of Nercessian for disclosing this feature. However, this portion of the reference does not disclose generating current at the master supply circuit responsive to the master signal.

Further, the combined teachings of the references would not suggest the step of presenting a high impedance to the feedback input terminal of the slave supply circuit, as claim 12 recites.

The Examiner takes the position that "the impedance of the feedback input terminal of the slave supply is determined by the master supply 8, which depends on the varying master signal, thus to have high impedance the resistors 14, 28 and the programming voltage source 15 have to be taken into account."

It is respectfully submitted that Nercessian does not teach or suggest presenting a high impedance to the feedback input terminal of the slave supply circuit using the resistors 14, 28 and the programming voltage source 15.

It appears that the Examiner relied upon inherency without expressly indicating such reliance. However, one skilled in the art would realize that a voltage amplifier with a feedback loop has a LOW output impedance, not a HIGH output impedance.

Therefore, the reference neither expressly nor inherently discloses the step of presenting a high impedance to the feedback input terminal of the slave supply circuit, as claim 12 recites.

*REJECTION OF CLAIM 20*

Independent claim 20 (as amended to correct an error made in the previous amendment) recites a method for controlling an output of a power supply in a defined manner. The method comprises:

- providing a power supply with a feedback terminal, an output terminal and a feedback network coupled between the feedback terminal and the output terminal, the feedback network presenting a resistance between the output terminal and the feedback terminal;

- dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal; and

- modifying the output of the power supply responsive to the dynamically changing resistance of the feedback network.

The Examiner holds Necessian to differ from this method only in that the reference does not disclose dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal. Arbetter is relied upon for disclosing this feature.

First, the Examiner must provide a reason why one having ordinary skill in the art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985). *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). This showing by the Examiner is an essential part of

complying with the burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

It is respectfully submitted that the Examiner has failed to provide the requisite reasons for modifying Nercessian by adding the step of dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal. Thus, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 20.

It is noted that in his rejection of claim 20, the Examiner discusses motivation for combining “the teachings of Nercessian with the teachings of Arbetter with master signal being digital injected (sic) on the feedback of a slave power supply in the Ishare bus.”

The Examiner concludes that motivation for this combination would be “to generate a slave signal that is indicative of a master control signal, that is digital injected (sic) on the feedback of a slave power supply as disclosed by Arbetter.”

However, the Examiner offered no logical reason, and no such reason is apparent, to support the conclusion that Nercessian needs “a slave signal that is indicative of a master control signal, that is digital injected on the feedback of a slave power supply.”

Moreover, it is not clear how the Examiner’s conclusion supports proposed modification of Nercessian by adding the step of dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal.

Second, even assuming *arguendo* that the applied references were combined, the invention recited in claim 20 would not result.

The Examiner contends that Nercessian discloses presenting resistor 28 and modifying the output of power supply depending upon the resistor 28.

However, Nercessian does not disclose that the resistor 28 is varied dynamically responsive to an input indicative of a master signal, as claim 20 recites. In fact, one skilled in the art would realize that varying resistor 28 dynamically would make the output's behavior vary with respect to the master signal, which is undesirable for the Nercessian's system.

Accordingly, Nercessian does not teach or suggest dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal; and modifying the output of the power supply responsive to the dynamically changing resistance of the feedback network.

Moreover, the Examiner admits that Nercessian does not disclose dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal. Accordingly, this reference cannot suggest modifying the output of the power supply responsive to the dynamically changing resistance of the feedback network.

In addition, it is respectfully submitted that Arbetter also does not disclose the step of dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal.

The Examiner relies upon col. 5, lines 1-5 of Arbetter. However, this portion of the reference discloses generating a signal indicative of a difference between the master and local control signals. No dynamically changing resistance of the feedback network responsive to an input indicative of a master signal is disclosed.

Accordingly, the combined teachings of Nercessian and Arbetter would not teach or suggest the steps of:

-dynamically changing the resistance of the feedback network responsive to an input indicative of a master signal; and

-modifying the output of the power supply responsive to the dynamically changing resistance of the feedback network, as claim 20 recites.

Claims 13, 14, and 16-18 depend from claim 12. Therefore, they are defined over the prior art at least for the reasons discussed above in connection with claim 12.


Accordingly, the rejection of claims 12-14, 16-18 and 20 under 35 U.S.C. 103 as being unpatentable over Nercessian in view of Arbetter is improper and should be withdrawn.

In view of the foregoing, and in summary, claims 1-18 and 20 are considered to be in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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